150 East Forty Second Street

New York 17, N.Y.

#194R1

(Originally activated Nov. 1, 1958)

Application For Research Grant

Date: August 5, 1959

1. Name of Investigator: Donald M. Pace, Ph.D.

2. Title: Professor of Physiology

3. Institution & Address:

University of Nebraska

Lincoln, Nebraska

- 4. Project or Subject: A continuation of investigations into the effects of certain constituents of tobacco smoke on tissue cells cultivated in vitro, especially human lung and skin cells.
- 5. Detailed Plan of Procedure: The same procedures (tissue culture procedures) as given in the previous applications will be followed. However, more attention will be given to long range effects of selected substances in concentrations that appear to have no effect over short periods of time, as well as these effects on human cells, which have not yet been investigated from this point of view.
- 6. Budget Plan:

Salaries
Expendable Supplies
Permanent Equipment
Overhead
Other (travel)
Total

\$8,000.00 {2,000. 1,250.00 750.00 \$10,000.00

- 7. Anticipated Duration of Work: 1 year (or more)
- 8. Facilities and Staff Available: The Institute for Cellular Research consists of a suite of 8 rooms well equipped for short and long term tissue culture investigations. Although the above request is made for the support of one investigator and a part-time assistant, actually all the staff members of the Institute enter into some phase of the work.
- 9. Additional Requirements: We are using a synthetic nutrient medium (plus 10% horse serum) in which to cultivate our cells. The expendable supplies consist of rather expensive chemicals for the synthetic media and special glassware such as culture flasks, etc.

10. Additional Information (Including relation of work to other projects and other sources of supply):

As stated in a previous request, we are also working on a project designed to give information concerning the effects of air pollutants on tissue cells cultivated in vitro. Ozone, hydrocarbons, SO2, and NO2 have been under observation. We have devised means for applying substances in the gaseous phase which can be used in our work on tobacco smoke.

/s/ Donald M. Pace
Director of Project

/s/ Perry W. Branch
Director-Secretary, University
of Nebraska Foundation